

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-14 (Cancelled)

Claim 15 (Currently amended) A tire condition communication system for a vehicle, said system comprising:

sensor means, associated with a tire, for sensing at least one tire condition;

radio frequency transmitter means, associated with the tire and operatively connected to said sensor means, for transmitting a radio frequency signal that indicates the sensed tire condition; and

communication means, having a first portion associated with the tire and operatively connected to said radio frequency transmitter means and a second portion associated with the vehicle, for communicating ~~a request~~ requests from the vehicle to said first portion of said communication means, each request causing said radio frequency transmitter means to transmit the radio frequency signal that indicates the sensed tire condition,

said second portion of said communication means being operatively connected to a vehicle condition sensor that is adapted to sense a condition of the vehicle, said second portion of said communication means communicating requests

from the vehicle at a rate that varies in response to the sensed condition of the vehicle.

Claim 16 (Currently amended) A tire condition communication system as set forth in claim 15, wherein the requests are low frequency initiation signals and wherein said first portion of said communication means includes low frequency receiver means for receiving a low frequency initiation signal and for causing said radio frequency transmitter means to transmit the radio frequency signal in response to receipt of the low frequency initiation signal.

Claim 17 (Original) A tire condition communication system as set forth in claim 16, wherein said communication means includes first and second magnetic induction antennas.

Claim 18 (Original) A tire condition communication system as set forth in claim 15, including radio frequency receiver means, associated with the vehicle, for receiving the radio frequency signal that indicates the sensed tire condition.

Claim 19 (Original) A tire condition communication system as set forth in claim 18, wherein said sensor means senses tire inflation pressure as the sensed tire condition.

Claim 20 (Original) A tire condition communication system as set forth in claim 18, including indicator means for providing an indication of sensed tire condition.

Claim 21 (Currently amended) A tire condition communication system as set forth in claim 20, wherein said indicator means is also for indicating tire location.

Claim 22 (Currently amended) A tire condition communication system as set forth in claim 20, wherein said radio frequency transmitter means is also for transmitting an identification associated with the tire, said system including means for using the identification to determine tire location, and said indicator means also ~~for~~ indicating tire location.

Claim 23 (Original) A tire condition communication system as set forth in claim 22, including means for storing identifications and associating identifications with respective tire locations.

Claim 24 (Original) A tire condition communication system as set forth in claim 23, including means for updating the stored identifications.

Claim 25 (Currently amended) A tire condition communication system as set forth in claim 24, wherein said means for updating the stored identifications

includes means for monitoring the number of times an identification is received at said second portion of said communication means.

Claim 26 (Currently amended) A tire condition communication system as set forth in claim 15, said vehicle condition sensor sensing a speed of the vehicle and said second portion of said communication means utilizing vehicle speed to vary the rate of operation of said communication means that the requests are communicated.

Claim 27 (Original) A tire condition communication system as set forth in claim 15, including memory means, associated with the tire, for holding a fixed identification associated with the tire, said radio frequency transmitter means also for transmitting the radio frequency signal to indicate the fixed identification.

Claim 28 (Original) A tire condition communication system as set forth in claim 27, including memory means, associated with the vehicle, for holding identification values for comparison with the fixed identification indicated by the received radio frequency signal.

Claim 29 (Original) A tire condition communication system as set forth in claim 27, wherein said memory means is capable of learning new identifications.

Claim 30 (Original) A tire condition communication system as set forth in claim 27, wherein said communication means does not convey identification information.

Claim 31 (Cancelled)

Claim 32 (Currently amended) A tire condition communication system as set forth in claim ~~34~~ 27, wherein the requests are low frequency initiation signals and wherein said first portion of said communication means includes low frequency receiver means for receiving a low frequency initiation signal and for causing said radio frequency transmitter means to transmit the radio frequency signal in response to receipt of the low frequency initiation signal.

Claim 33 (Original) A tire condition communication system as set forth in claim 32, wherein said communication means includes first and second magnetic induction antennas.

Claim 34 (Currently amended) A tire condition communication system as set forth in claim ~~34~~ 27, including radio frequency receiver means, associated with the vehicle, for receiving the radio frequency signal that indicates the fixed identification and the sensed tire condition, and memory means, associated with the vehicle, for holding identification values for comparison with the fixed identification indicated by the received radio frequency signal.

Claim 35 (Currently amended) A tire condition communication system as set forth in claim ~~34~~ 27, wherein said memory means is capable of learning new identifications.

Claim 36 (Currently amended) A tire condition communication system as set forth in claim ~~34~~ 27, including means for counting the number of receptions of an identification to determine whether to learn a new identification.

Claim 37 (Currently amended) A tire condition communication system as set forth in claim ~~34~~ 27, wherein said communication means does not convey identification information.

Claim 38 (Currently amended) A tire condition communication system as set forth in claim ~~34~~ 27, wherein said sensor means senses tire inflation pressure as the sensed tire condition.

Claim 39 (Currently amended) A tire condition communication system as set forth in claim ~~34~~ 27, including indicator means for providing an indication of sensed tire condition.

Claim 40 (Currently amended) A tire condition communication system as set forth in claim 39, wherein said indicator means is also for providing an indication of tire location with the indication of sensed tire condition.

Claim 41 (Cancelled)

Claim 42 (Currently amended) A tire condition communication system as set forth in claim 41 27, wherein said vehicle condition sensor senses a speed of the vehicle and the vehicle condition is vehicle speed.

Claim 43 (Currently amended) A method of communicating tire condition information from a tire condition sensor unit to a vehicle-based unit of a tire communication system of a vehicle, said method comprising:

sensing a condition of the vehicle;

outputting from the vehicle based-unit, at a rate that varies in response to ~~control from the vehicle-based-unit~~ the sensed condition of the vehicle, a low frequency initiation ~~signal~~ signals for reception by the tire condition sensor unit; and

outputting, in response to receipt of the a low frequency initiation signal, a radio frequency response signal that conveys the tire condition information from the tire condition sensor unit for reception by the vehicle-based unit.

Claim 44 (Currently amended) A method as set forth in claim 43 including
~~A method of communicating tire condition information from a tire condition sensor~~
~~unit to a vehicle-based unit, said method comprising:~~

~~outputting in response to control from the vehicle-based unit, a low~~
~~frequency signal for reception by the tire condition sensor unit; and~~

~~outputting a radio frequency signal that conveys~~ conveying in the radio
frequency response signal ~~a fixed tire identification and the tire condition information~~
~~from the tire condition sensor unit for reception by the vehicle-based unit.~~

Claim 45 (Currently amended) A method as set forth in claim 44 43,
including indicating the sensed condition and tire location to a vehicle operator.

Claim 46 (Currently amended) A method as set forth in claim 44 43,
wherein sensing a condition of the vehicle includes sensing vehicle speed and
further including controlling the step of outputting the low frequency signal signals for
reception by the tire condition sensor unit in response to a vehicle condition sensed
vehicle speed.

Claim 47 (Original) A method as set forth in claim 44, including comparing
the conveyed tire identification with a stored identification at the vehicle.

Claim 48 (Original) A method as set forth in claim 47, including updating the stored identification at the vehicle via provision of a new identification from a tire condition sensor unit.

Claim 49 (Currently amended) A method of communicating tire condition information from a plurality of tire condition sensor units to a vehicle-based unit of a tire communication system of a vehicle, said method comprising:

sensing a condition of the vehicle;

sequentially outputting from the vehicle based-unit, at a rate that varies in response to ~~control from the vehicle-based unit~~ the sensed condition of the vehicle, low frequency initiation signals, each low frequency initiation signal being for reception by a ~~different~~ one of the plurality of tire condition sensor ~~unit~~ units; and

each tire condition sensor unit outputting, in response to receipt of ~~the~~ a respective low frequency initiation signal, a radio frequency response signal that conveys the tire condition information from that tire condition sensor unit for reception by the vehicle-based unit.

Claim 50 (Currently amended) A method as set forth in claim 49, wherein said step of outputting the radio frequency response ~~signals~~ signal includes outputting the response ~~signals~~ signal to convey a fixed tire identification ~~identifications~~ identification.

Claim 51 (Original) A method as set forth in claim 50, including indicating the sensed conditions and tire locations to a vehicle operator.

Claim 52 (Currently amended) A method as set forth in claim 50, including comparing the conveyed tire ~~identifications~~ identification with stored identifications at the vehicle.

Claim 53 (Original) A method as set forth in claim 49, including updating a stored identification at the vehicle via provision of a new identification from a tire condition sensor unit.

Claim 54 (Currently amended) A method as set forth in claim 49, wherein sensing a condition of the vehicle includes sensing vehicle speed and further including controlling the step of outputting the low frequency signals for reception by the tire condition sensor units in response to ~~a vehicle condition~~ the sensed vehicle speed.

Claims 55 and 56 (Cancelled)

Claim 57 (New) A tire condition communication system for a vehicle, said system comprising:

a tire based unit including sensor means for sensing a tire condition, radio frequency transmitter means, operatively connected to said sensor means, for

transmitting a radio frequency signal that indicates the sensed tire condition, and low frequency receiver means, operatively connected to said radio frequency transmitter means, for receiving a low frequency initiation signal and for causing said radio frequency transmitter means to transmit the radio frequency signal indicative of the sensed tire condition in response to receipt of the low frequency initiation signal; and

a vehicle based unit including a vehicle condition sensor for sensing a condition of the vehicle, low frequency transmitter mean for transmitting low frequency initiation signals, and radio frequency receiver means for receiving the radio frequency signal indicative of the sensed tire condition from said tire based unit,

said low frequency transmitter means of said vehicle based unit transmitting the low frequency initiation signals to said tire based unit at a rate that varies in response to the sensed condition of the vehicle.

Claim 58 (New) A tire condition communication system as set forth in claim 57, wherein the vehicle condition sensor is a vehicle speed sensor for sensing the speed of the vehicle, said low frequency transmitter means of said vehicle based unit transmitting the low frequency initiation signals to said tire based unit at a rate that varies in response to the sensed vehicle speed.

Claim 59 (New) A tire condition communication system as set forth in claim 57, wherein said low frequency receiver means and said low frequency

transmitter means include first and second magnetic induction antennas, respectively.

Claim 60 (New) A tire condition communication system as set forth in claim 57, wherein said tire based unit also includes a memory in which an identification of said tire based unit is stored, said radio frequency transmitter means including the identification of said tire based unit in the radio frequency signal.

Claim 61 (New) A tire condition communication system as set forth in claim 60, wherein said vehicle-based unit includes means for storing the identification of said tire based unit after receiving the identification in the radio frequency signal.

Claim 62 (New) A tire condition communication system as set forth in claim 61, wherein said vehicle based unit includes means for pairing the stored identification with a tire location.

Claim 63 (New) A tire condition communication system as set forth in claim 57, wherein said tire based unit further includes controller means operatively connected to said sensor means, said radio frequency transmitter means, and said low frequency receiver means and controlling operation of said sensor means and said radio frequency transmitter means.

Claim 64 (New) A tire condition communication system as set forth in claim 57, wherein said sensor means senses tire inflation pressure as the sensed tire condition.